

### Amendments to the Claims

1. (Currently Amended) A diffusion barrier alloy film ~~having comprising:~~

a diffusion barrier layer made of an Re-W alloy  $\sigma$  phase containing 12.5 to 56.5% of W in terms of atomic composition and the remainder of Re excluding unavoidable impurities;

a diffusion alloy layer coating a surface of said diffusion barrier layer, said diffusion alloy layer containing 10% or greater and less than 50% of Al, Cr, or Si in terms of atomic composition; and

a W-dispersed layer with W dispersed therein, said W-dispersed layer being located between said diffusion barrier layer and said diffusion alloy layer.

2. (Currently Amended) A diffusion barrier alloy film ~~having comprising:~~

a diffusion barrier layer made essentially of an Re-W alloy  $\sigma$  phase containing 12.5 to 56.5% of W and 20 to 60% of Re in terms of atomic composition, the total quantity of W and Re being 50% or greater, and, excluding unavoidable impurities, the remainder being of at least one selected from Cr, Ni, Co, and Fe;

a diffusion alloy layer coating a surface of said diffusion barrier layer, said diffusion alloy layer containing 10% or greater and less than 50% of Al, Cr, or Si in terms of atomic composition; and

a W-dispersed layer with W dispersed therein, said W-dispersed layer being located between said diffusion barrier layer and said diffusion alloy layer.

3. (Previously Presented) A diffusion barrier alloy film according to claim 1, wherein said diffusion barrier layer is formed by performing Re or Re alloy plating and W or W alloy plating on a surface of a metal base, and thereafter heat-treating the plated metal base at 1200°C or higher.

4. (Currently Amended) A diffusion barrier alloy film according to claim 1, further ~~having comprising~~ an Re-dispersed layer with Re dispersed therein, disposed in an interface between said diffusion barrier layer and a metal base to be coated with said diffusion barrier layer.

5. (Original) A diffusion barrier alloy film according to claim 4, wherein said Re-dispersed layer and said diffusion barrier layer are formed by performing Re alloy plating in two stages with different concentrations of Re on a surface of the metal base, performing W alloy plating on the plated surface of the metal base, and thereafter heat-treating the plated metal base at 1200°C or higher.

Claims 6-16 (Cancelled)

17. (Currently Amended) A high-temperature apparatus member comprising:

~~a metal base having a surface coated with;~~

a diffusion barrier layer made of an Re-W alloy  $\sigma$  phase containing 12.5 to 56.5% of W in terms of atomic composition and the remainder of Re excluding unavoidable impurities, said diffusion barrier layer coating a surface of said metal base;

a diffusion alloy layer coating a surface of said diffusion barrier layer, said diffusion alloy layer containing 10% or greater and less than 50% of Al, Cr, or Si in terms of atomic composition; and

a W-dispersed layer with W dispersed therein, said W-dispersed layer being located between said diffusion barrier layer and said diffusion alloy layer.

18. (Currently Amended) A high-temperature apparatus member comprising:

~~a metal base having a surface coated with~~

a diffusion barrier layer made essentially of an Re-W alloy  $\sigma$  phase containing 12.5 to 56.5% of W and 20 to 60% of Re in terms of atomic composition, the total quantity of W and Re being 50% or greater, and, excluding unavoidable impurities, the remainder being of at least one selected from Cr, Ni, Co, and Fe, said diffusion barrier layer coating a surface of said metal base;

a diffusion alloy layer coating a surface of said diffusion barrier layer, said diffusion alloy layer containing 10% or greater and less than 50% of Al, Cr, or Si in terms of atomic composition; and

a W-dispersed layer with W dispersed therein, said W-dispersed layer being located between said diffusion barrier layer and said diffusion alloy layer.

Claim 19 (Cancelled).

20. (Previously Presented) A high-temperature apparatus member according to claim 17, further comprising an Re-dispersed layer with Re dispersed therein, between said metal base and said diffusion barrier layer.

Claim 21 (Cancelled).

22. (Currently Amended) A high-temperature apparatus member according to claim ~~19~~17, wherein said diffusion alloy layer has a surface covered with a ceramics layer.

Claims 23 and 24 (Cancelled).

25. (Previously Presented) A diffusion barrier alloy film according to claim 2, wherein said diffusion barrier layer is formed by performing Re or Re alloy plating and W or W alloy plating on a surface of a metal base, and thereafter heat-treating the plated metal base at 1200°C or higher.

26. (Currently Amended) A diffusion barrier alloy film according to claim 2, further ~~having~~ comprising an Re-dispersed layer with Re dispersed therein, disposed in an interface between said diffusion barrier layer and a metal base to be coated with said diffusion barrier layer.

Claims 27-38 (Cancelled).

39. (Previously Presented) A high-temperature apparatus member according to claim 18, further comprising an Re-dispersed layer with Re dispersed therein, between said metal base and said diffusion barrier layer.

Claims 40 and 41 (Cancelled).